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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,400	12/11/2003	W. Daniel Hillis	APPL0030	2127
22862 7590 02/10/2011 GLENN PATENT GROUP 3475 EDISON WAY, SUITE L MENLO PARK, CA 94025				
EXAMINER D'AGOSTINO, PAUL ANTHONY				
ART UNIT		PAPER NUMBER		
3716				
NOTIFICATION DATE		DELIVERY MODE		
02/10/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eptomatters@glenn-law.com  
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### Office Action Summary

**Application No.**

10/735,400

**Applicant(s)**

HILLIS ET AL.

**Examiner**

Paul A. D'Agostino

**Art Unit**

3716

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8,10,11,13-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10,11,13-18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This responds to Applicant's Arguments/Remarks filed 11/09/2010. Claims 1, 3-5, 11, 13, 15, and 20 have been amended. Claims 2, 9, 12, and 19 have been cancelled. Claims 1, 3-8, 10-11, 13-18 and 20 are now pending in this Application.

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/09/2010 has been entered.

### ***Response to Amendment***

2. Applicant has amended the claims to recite more particulars of the means for reducing and mapping of said control input sets. Examiner maintains that the art of record discloses these additional claimed features.

3. Further, Applicant has amended Claims 1 and 11 with sufficient structure of a configuration interface for the "means for reducing" to no longer sustain the invocation of 35 U.S.C. § 112, sixth paragraph.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3-8, 10-11, 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,404,305 to Stiles et al. (Stiles) in view of U.S. Patent Pub. No. 2002/0072410 to Tanaka et al. (Tanaka).

In Reference to Claims 1 and 11

Stiles discloses a means {method} for reducing control input sets to at least one reduced input set (Fig. 1 wherein pilot and co-pilot control stations' Yaw, Pitch, Roll, and Lift are reduced into one set of Yaw, Pitch, Roll and Lift commands Col. 3 Lines 47-67 and Col. 4 Lines 1-17) according to a reduction scheme (Fig. 1 "dual station sidearm control system" 10 and Col. 3 Lines 47-49);

wherein each reduced control input set determines the action of a separate entity (Fig. 1 where signals are combined to determined the direction of a main and tail rotor);

wherein controllers collectively control at least one entity ("it is possible for one pilot to override the other" Col. 1 Lines 25-26 or "are summed to provide a total system input signal" Col. 2 Lines 18-20);

wherein the reduction scheme specifies a mapping of said control input sets onto said at least one reduced control input set (Figs. 1 and 2 and Col. 4 Lines 18-25 for the Yaw command establishes a mapping which is "equally applicable to flight control Pitch, Roll, and Lift axis modules" Col. 4 Lines 24-26); and

wherein the reduction scheme is specified by a user through a user interface (Stiles discloses a reduction scheme whereby the "magnitude of the pilot input control signals is monitored" relative to a first and a second threshold so as to attenuate the signal of the co-pilot controls (Col. 2 Lines 40-52 and Lines 67-68 and Col. 3 Lines 1-10); system performs the function of applying said magnitude of pilot input control to a

YAW, Pitch, Roll, and Lift signals inherently, or any combination thereof through collective stick 26 in Fig. 1 user interface)

However, Stiles fails to teach of a videogame controller hub and method for applying reducing control input sets received from a plurality of video game controllers, each of said control input sets comprising a plurality of control inputs for an on-screen entity;

wherein the means for reducing comprises a configuration interface for specifying a mapping of said control input sets received by said video game controller hub onto said at least one control input set provided to a video game console, said mapping comprising a mapping of said video game controllers onto at least one corresponding on-screen entity, said interface operable by at least one user of said video game controller hub to indicate how said control input sets from said corresponding plurality of video game controllers are to be combined to control said at least one on-screen entity; and

means for providing {providing} said at least one reduced control input set to a video game console.

Tanaka teaches of a video game ("video game machine" [0002]) controller hub and method (Fig. 3 "port duplicator" 303A; [0063]) and of means of receiving (Fig. 3 "connection slots" 304a - 304d; [0065]) a plurality of control input sets (Fig. 3 signals over "cables" 305a - 305d; [0065]) from a corresponding plurality of video game controllers (Fig. 3 "controllers" 20a-20c; [0064]), each of said control input sets comprising a plurality of control inputs ("It is to be noted that the matters controlled by

the controller are not limited to game characters ..." [0006]) for an on-screen entity ("For a game to be enjoyed by a plurality of players through such individual operations of the controllers, it is necessary that correlation between the individual game characters appear on a television monitor [0004]) wherein each control input set determines an action of a separate on- screen entity said video game controllers collectively control at least one on-screen entity in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players [0004, 0005];

wherein Tanaka teaches of a configuration interface for specifying a mapping of said control input sets received by said video game controller hub onto said at least one control input set provided to a video game console (Examiner interprets the configuration interface to be the "display portion of the controller" [0048] for specifying to the player the results of the correlations between the controllers and the individual game characters that appear on the screen ([0004, 0005, 0012, 0035], said mapping comprising a mapping of said video game controllers onto at least one corresponding on-screen entity ([Fig. 2 controller connection management program and creation of "registration table" [0041-0062] for mapping {registering} controllers to game characters and controller button information [0044-0054]), said interface operable by at least one user of said video game controller hub to indicate how said control input sets from said corresponding plurality of video game controllers are to be assigned to control said at least one on-screen entity (Giving the limitation its broadest reasonable meaning in light of the specification, the interface is operable when the player reads the display, also,

the player may interact with the interface by manually changing the ports to which the controllers have been inserted. According to Tanaka, a new registration table will be created according the process of Fig. 2 and displayed to the player. The player may change the controllers into different ports until he or she sees an indication in their display that they desire best). "By virtue of such processing, the entertainment system of the first embodiment can provide recognition and management of the controllers under connection, and can provide display of a controller number or a character icon on the display portion of each controller" ([0062]); and

means for providing said at least one reduced control input set to a video game console (Fig. 12 "monitor device" 100; [0163]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the video game machine, controller hub, configuration interface and method as taught by Tanaka with the reduction scheme of Stiles in order for games to accommodate more players and for players to be sure of which game characters they control or have shared control so that the game can be enjoyed by a plurality of players.

#### In Reference to Claims 3 and 13

Stiles as modified by Tanaka discloses a one to one mapping wherein said controller hub is functionally deactivated and said control input sets are provided unaltered to said video game console (Fig. 3 and "When the switch 230 is activated to the true or T position, the co\-\ pilot yaw axis command on line 234 is first applied to the



priority function 222 wherein the reduction in co-pilot authority is determined based on the magnitude of the pilot input." Col. 5 Lines 3-7). Further, if the hub is deactivated and the signals pass through unaltered, Stiles discloses known systems where the signals. "cancel each other out." (Col. 2 Line 24).

In Reference to Claims 4 and 14

Stiles as modified by Tanaka discloses means for combining at least two of said at least one control input from said control input sets according to a combination scheme (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39). Stiles discloses a combination scheme whereby the "magnitude of the pilot input control signals is monitored" relative to a first and a second threshold value so as to attenuate the signal of the co-pilot controls (Col. 2 Lines 40-52 and Lines 67-68 and Col. 3 Lines 1-10).

In Reference to Claims 5 and 15

Stiles as modified by Tanaka discloses a combination scheme that specifies at least one combination procedure applied to at least two of said at least one control input, each of which corresponds across said control input sets; said combination procedure producing a single control input within said at least one reduced control input set (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 6 and 16

Stiles as modified by Tanaka discloses the controller wherein said at least one combination procedure is applied to corresponding control input sets in accordance with said reduction scheme (Fig. 3 and Col. 4 Lines 18-26 and Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1- 39).

In Reference to Claims 7 and 17

Stiles as modified by Tanaka discloses the controller wherein said at least one combination procedure is based upon a vote (Stiles discloses known systems wherein "one pilot can override the other" Col. 1 Lines 25-26), a selection ("The priority detector function determines the amount of priority given to a co-pilot yaw axis command signals in relation to pilot yaw axis command signals..." Col. 4 Lines 42-46), and an averaging calculation ("co-pilot controls are 'faded-in" or "washed-in" Col. 2 Lines 3-4).

In Reference to Claims 8 and 18

Stiles discloses a system substantially equivalent to applicant's claimed invention. However, Stiles fails to disclose wherein said on-screen entity comprises any of: a vehicle, a character, and a team.

Tanaka teaches of controlling on screen characters ([0004]) where the vehicle and team are obvious equivalents ("matters controlled by the controller are not limited to the game characters" [0006]) in order to provide a video game that can be enjoyed by a plurality of players ([0004]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the on-screen entities as taught by Tanaka into the teachings of Stiles in order to provide a video game that can be enjoyed by a plurality of players.

In Reference to Claims 10 and 20

Stiles discloses a system and method substantially equivalent to Applicant's claimed invention. Further, Stiles discloses a combination scheme e.g., a selection (Col. 4 Lines 42-46; see rejection of Claim 7). However, Stiles is silent wherein the combination scheme is specified by a user of the video game through said configuration interface.

Tanaka teaches of a configuration interface for specifying a mapping of said control input sets received by said video game controller hub onto said at least one control input set provided to a video game console (Examiner interprets the configuration interface to be the "display portion of the controller" [0048] for specifying to the player the results of the correlations between the controllers and the individual game characters that appear on the screen ([0004, 0005, 0012, 0035], said mapping comprising a mapping of said video game controllers onto at least one corresponding on-screen entity ([Fig. 2 controller connection management program and creation of "registration table" [0041-0062] for mapping {registering} controllers to game characters and controller button information [0044-0054]), Giving the limitation its broadest reasonable meaning in light of the specification, by leaving a controller out of a port, the

user is able to confirm on the display that the combination scheme is a selection or vote operation wherein the on screen character is not controlled or is overridden. Likewise, as two controllers are recognized at the ports, the system will average the inputs by fading in one of the controllers. For these combinational schemes, Tanaka will create a registration table according to the process of Fig. 2 and display the table mappings to the player to verify. The player verifies that the controller selection is properly mapped to the desired controllers to effect voting, selection, or averaging. "By virtue of such processing, the entertainment system of the first embodiment can provide recognition and management of the controllers under connection, and can provide display of a controller number or a character icon on the display portion of each controller" ([0062]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the configuration interface and selection scheme as taught by Tanaka with the combination scheme of Stiles in order for games to accommodate more players and for players to be sure of which game characters they individually control or have shared control so that the game can be enjoyed by a plurality of players.

### ***Response to Arguments***

8. Applicant's arguments filed 11/9/2010 have been fully considered but they are not persuasive. Applicant argues (Applicant Arguments/Remarks page 9) that the claimed mapping scheme would not be obvious in light of Stiles significantly because Stiles only teaches the use of weighting not reducing input, is on a single channel and

has a different purpose of creating a parallel output. In contrast Applicant argues the method of mapping is not disclosed in Stiles – that Stiles is hard-wired. Examiner respectfully disagrees. First, whether Stiles is a weighting system, uses a single channel, or has another purpose are only important if Stiles fails to disclose the claimed invention. Examiner, after mapping Stiles to the claims, finds that these are distinctions without a difference. Further Examiner believes hard-wiring is mapping and so Stiles discloses mapping. Applicant has amended the claims to recite a mapping of a plurality of controllers, features which are not disclosed in Stiles. Examiner agrees. For this reason, the rejection of the claims also relies on Tanaka, however Applicant has not addressed Tanaka as part of his arguments. Examiner has interpreted the teachings of Tanaka to provide the claimed gaming system, mapping, and interface and Examiner provided motivation to combine Stiles and Tanaka (See rejection of claims 1 and 11). For these reasons, the rejection of the claims is maintained.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided in the Notice of References Cited.
10. This is a continued examination of Applicant's earlier Application No. 10.735,400. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571)270-1992. The examiner can normally be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 3716

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul A. D'Agostino/  
Examiner, Art Unit 3716